

Actuarial Section

State Actuary's Certification Letter



WASHINGTON STATE LEGISLATURE Office of the State Actuary

Gerald B. Allard, State Actuary

October 31, 2002

Mr. John Charles, Director
Department of Retirement Systems
P.O. Box 48380
Olympia, Washington 98504-8380

Dear Mr. Charles:

The purpose of this letter is to:

- (1) Certify the actuarial adequacy of contributions being made to the pension plans administered by your department, the State of Washington, and participating political subdivisions;
- (2) Discuss the funding of these plans; and
- (3) Certify that our other submissions meet our portion of the GFOA certification standards for financial reporting.

The information in this letter pertains to the Public Employees' Retirement System (PERS), Teachers' Retirement System (TRS), School Employees' Retirement System (SERS), Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF), Washington State Patrol Retirement System (WSPRS), Judicial Retirement System (JRS), and Judges' Retirement System (Judges). The other pension plans the state contributes to are not administered by your agency.

Actuarial valuations are performed annually for all systems. The most recent valuation for these systems was September 30, 2001.

The assumptions used in an actuarial valuation fall into two categories: economic and demographic. The economic assumptions were set in statute as of July 1, 2001. They are scheduled to be reviewed every four years by the Pension Funding Council. These include salary increases, inflation, the investment earnings rate, and population growth. The demographic assumptions include such things as retirement, mortality, termination, and disability rates. These rates are derived by our office from studying the actual experience of these systems. These studies are reviewed annually and studied in depth every six years. The legislature adopted the new demographic assumptions effective April 1, 2002 based on our 1995-2000 Experience Study.

The material changes made during the 2001 Legislative Session that became effective during (and after) the 2001 Fiscal Year were disclosed in last year's annual report.

Legislation enacted during the 2002 Legislative Session provided:

- PERS 1 members who are at least age 50 and have at least 20 years of service and separate from service on or after January 1, 2002 to commence their retirement benefit at age 60 without reduction.
- PERS Plan 1 or WSPRS members to receive additional prior military service credit in a limited number of situations.
- Permits members and their ex-spouses to elect to receive a divided benefit.

There were no other material changes during the 2002 Session.

In 1989, the state adopted the objective of amortizing its Unfunded Actuarial Accrued Liability by June 30, 2024, for PERS 1, TRS 1, and LEOFF 1. Benefit increases are funded over this same period. The funding method for these three plans is the entry age method. For PERS 1, TRS 1, and LEOFF 1, the normal cost was imputed from PERS 2/3, TRS 2/3, and LEOFF 2, respectively. The amortization calls for payments as a level percentage of pay. During 2001 the systems were funded according to this method and, if continued, the plans will be adequately funded.

PERS 2/3, TRS 2/3, SERS 2/3, LEOFF 2, and WSPRS use the aggregate funding method which does not develop an Unfunded Actuarial Accrued Liability. At present these systems are well funded.

The Judicial and Judges Systems are on a pay-as-you-go basis. Both systems are closed to new members and have very small liabilities compared to other state plans. Although they are poorly funded systems, it is expected that the state can continue to meet its obligations by funding on a pay-as-you-go basis because of the small size of these two plans.

In performing these valuations, we relied on unaudited employee data provided by your department. Both the Department of Retirement Systems and the Office of the State Actuary performed a series of edits to check the quality of the data. The data is sufficient and reliable for the purpose of annual valuations. Asset information came from three sources: the Department of Retirement Systems, the State Investment Board, and the Washington State Treasurer's report. Assets are adjusted by having gains and losses amortized over a four-year period: 25% per year.

The following schedules (or updates to them) were prepared by this office for inclusion in the 2002 Comprehensive Annual Financial Report:

- Schedules of Funding Progress
- Schedule of Contributions from Employers and Other Contributing Entities
- Summary of Actuarial Assumptions and Methods
- Schedules of Active Member Valuation Data
- Schedules of Retirees and Beneficiaries Added to and Removed from Rolls
- Solvency Tests
- Analysis of Selected Experience

The assumptions and methods established in statute are used for funding purposes. Disclosure items were provided in accordance with GASB 25 and GASB 27. The funding policy and reporting items are discussed in the Notes to the Required Supplementary Information, as well as in the section Funding Policy, both in the Financial Section of the CAFR.

Respectfully submitted,



Larry Risch
Deputy State Actuary

Summary of Plan Provisions

A narrative summary of retirement plans managed by DRS is provided in Section B of Note 2 in the Financial Section of this CAFR. A tabular summary of key plan provisions as of June 30, 2002, is provided below.

Plan	Membership Eligibility	Vesting	Retirement Eligibility	Benefit
PERS Plan 1 (By 9/30/77)	State employees, elected officials, employees of local governments, legislative committees, community/technical colleges, classified employees of school districts, district/municipal court judges, and some employees of the Supreme, Appeals, and Superior Courts	After five years of eligible service	After 30 years of service, or at age 60 with 5 years service, or at age 55 with 25 years of service	2% of average final compensation (AFC) per year of service
PERS Plan 2 (On or after 10/1/77 and by either 2/28/02 or 8/31/02)	Same as PERS Plan 1, except classified employees of school districts	Same as PERS Plan 1	At age 65 with 5 years of service, or an actuarially reduced benefit at age 55 with 20 years of service	2% of AFC per year of service
PERS Plan 3 (On or after either 3/1/02 or 9/1/02)	Same as PERS Plan 2	Varies	At age 65 with 5 years of service, or an actuarially reduced benefit at age 55 with 20 years of service (defined benefit portion)	1% of AFC per year of service (defined benefit portion)
SERS Plan 2 (On or after 9/1/00)	All classified employees of school districts or educational service districts	After five years of eligible service	At age 65 with 5 years of service, or an actuarially reduced benefit at age 55 with 20 years of service	2% of AFC per year of service
SERS Plan 3 (On or after 9/1/00)	All classified employees of school districts or educational service districts on or after 9/1/00, or SERS 2 transfer members	Varies	At age 65 with 5 years of service, or an actuarially reduced benefit at age 55 with 20 years of service (defined benefit portion)	1% of AFC per year of service (defined benefit portion)
TRS Plan 1 (By 9/30/77)	All certificated public school employees	After five years of eligible service	After 30 years of service, or at age 60 with 5 years of service, or at age 55 with 25 years of service	2% of AFC per year of service
TRS Plan 2 (On or after 10/1/77 and by 6/30/96)	Same as TRS Plan 1	Same as TRS Plan 1	At age 65 with 5 years of service, or an actuarially reduced benefit at age 55 with 20 years of service	2% of AFC per year of service
TRS Plan 3 (On or after 7/1/96)	Same as TRS Plan 1	Varies	At age 65 with 5 years of service, or an actuarially reduced benefit at age 55 with 20 years of service (defined benefit portion)	1% of AFC per year of service (defined benefit portion)
LEOFF Plan 1 (By 9/30/77)	All full-time, fully compensated local law enforcement officers and fire fighters	After five years of eligible service	At age 50 with 5 years of service	20 years of service = 2% of final average salary (FAS) per year of service 10-19 = 1.5% FAS per year of service 5-9 = 1% FAS per year of service
LEOFF Plan 2 (On or after 10/1/77)	Same as LEOFF Plan 1	Same as LEOFF Plan 1	At age 53 with 5 years of service or an actuarially reduced benefit at age 50 with 20 years of service	2% of FAS per year of service
WSPRS Plan 1 (On or after 8/1/47)	Commissioned employees of the Washington State Patrol	Same as LEOFF Plan 1	At age 55 or after 25 years of service	2% of average final salary per year of service
JRS (On or after 8/9/71 and by 7/1/88— New judges on or after 7/1/88 join PERS Plan 2)	Judges elected or appointed to the Supreme Court, the Court of Appeals and Superior Courts	After 15 years of service	At age 60	15+ years of service = 3.5% of AFC per year of service 10-15 = 3% of AFC per year of service
Judges (By 8/8/71)	Same as JRS	After 12 years of service	At age 70 with 10 years of service or any age with 18 years of service	1/2 of the monthly salary

DRS publishes handbooks describing the rights and benefits for each system and plan, including disability and survivor benefits. These handbooks are provided to members by their employers. They are also available from DRS and are on the DRS Web site at www.wa.gov/DRS/drs.htm

Summary of Actuarial Assumptions and Methods

1. Actuarial Assumptions and Methods Selection:

Economic Assumptions and Methods: Developed in accordance with Washington State law and the Pension Funding Council.

Demographic Assumptions and Methods: Derived by the Washington State Office of the State Actuary and are based on the 1995-2000 Experience Studies (adopted April 1, 2002).

2. Investment Return: 8.0% per annum

3. Mortality Tables:

Mortality rates are based on the RP-2000 Combined Healthy Table published by the Society of Actuaries. These rates are adjusted to better reflect expected mortality for the particular group. Rates are adjusted by an age set back or set forward. A minimum rate is also applied to disabled mortality.

Class	Contributing Members and Members Retired from Service	Disabled Members
PERS	RP-2000 Combined Healthy Table	RP-2000 Combined Healthy Table; males set forward six years, minimum 5%; females set forward six years, minimum 3.5%
SERS	RP-2000 Combined Healthy Table; males unadjusted; females set back two years	RP-2000 Combined Healthy Table; males set forward five years, minimum 3%; females set forward two years, minimum 3%
TRS	RP-2000 Combined Healthy Table; males set back two years; females set back two years	RP-2000 Combined Healthy Table; males set forward five years, minimum 3%; females set forward two years, minimum 1.75%
LEOFF	RP-2000 Combined Healthy Table	RP-2000 Combined Healthy Table; males set forward two years, minimum 0.5%; females set forward two years, minimum 0.5%
WSPRS	RP-2000 Combined Healthy Table	RP-2000 Combined Healthy Table; males set forward two years, minimum 0.5%; females set forward two years, minimum 0.5%
JRS	RP-2000 Combined Healthy Table	RP-2000 Combined Healthy Table; males set forward six years, minimum 5%; females set forward six years, minimum 3.5%

4. Retirement (page 1 of 3): Probabilities of service retirement are illustrated in the following tables:

PERS Plan 1
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Male	Female
50	64%	40%
51	57%	43%
52	52%	37%
53	52%	33%
54	52%	52%
55	22%	26%
56	22%	18%
57	22%	18%
58	22%	22%
59	22%	37%
60	22%	18%
61	22%	22%
62	40%	37%
63	26%	26%
64	30%	26%
65	49%	46%
66-69	30%	26%
70	100%	100%

SERS Plan 2/3
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Service Less Than 30 Years		Service Greater Than or Equal to 30 Years	
	Male	Female	Male	Female
54	2%	2%	4%	4%
55	5%	5%	7%	7%
56	5%	5%	7%	7%
57	5%	5%	7%	7%
58	10%	5%	14%	7%
59	10%	5%	14%	7%
60	14%	14%	21%	21%
61	14%	18%	21%	27%
62	33%	30%	50%	45%
63	26%	26%	39%	39%
64	79%	82%	90%	90%
65	52%	49%	52%	49%
66	30%	30%	30%	30%
67	22%	26%	22%	26%
68	22%	26%	22%	26%
69	100%	100%	100%	100%

PERS Plan 2/3
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Service Less Than 30 Years		Service Greater Than or Equal to 30 Years	
	Male	Female	Male	Female
55	5%	5%	7%	7%
56	5%	5%	7%	7%
57	5%	5%	7%	7%
58	10%	5%	14%	7%
59	10%	5%	14%	7%
60	14%	14%	21%	21%
61	14%	18%	21%	27%
62	33%	30%	50%	45%
63	26%	26%	39%	39%
64	79%	82%	90%	90%
65	52%	49%	52%	49%
66	30%	30%	30%	30%
67	22%	26%	22%	26%
68	22%	26%	22%	26%
69	26%	22%	26%	22%
70	100%	100%	100%	100%

TRS Plan 1
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Service Less Than 30 Years		Service Greater Than or Equal to 30 Years	
	Male	Female	Male	Female
54	25%	20%	40%	30%
55	20%	20%	35%	30%
56	20%	20%	35%	30%
57	20%	20%	40%	30%
58	20%	25%	45%	30%
59	20%	25%	45%	30%
60	20%	20%	60%	35%
61	45%	35%	60%	55%
62	30%	25%	60%	50%
63	25%	20%	60%	50%
64	45%	45%	90%	90%
65	45%	35%	90%	90%
66	35%	30%	90%	90%
67	30%	35%	90%	90%
68	30%	25%	90%	90%
69	100%	100%	100%	100%

4. Retirement (page 2 of 3):

TRS Plan 2/3
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Service Less Than 30 Years		Service Greater Than or Equal to 30 Years	
	Male	Female	Male	Female
54	5%	3%	8%	5%
55	5%	5%	8%	8%
56	5%	10%	8%	15%
57	5%	10%	8%	15%
58	5%	10%	8%	15%
59	20%	15%	30%	23%
60	40%	20%	60%	30%
61	30%	30%	45%	45%
62	30%	30%	45%	45%
63	60%	50%	90%	75%
64	50%	50%	50%	50%
65	50%	30%	50%	30%
66	50%	25%	50%	25%
67	50%	25%	50%	25%
68	50%	40%	50%	40%
69	100%	100%	100%	100%

WSPRS Plan 1
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Rate
45-50	31%
51-55	23%
56-59	28%
60+	100%

LEOFF
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Plan 1 Rate	Plan 2 Rate
50	9%	10%
51	7%	10%
52	8%	10%
53	8%	16%
54	10%	19%
55	16%	24%
56	16%	25%
57	16%	25%
58	23%	33%
59	23%	33%
60	23%	33%
61	28%	37%
62	28%	37%
63	28%	37%
64	40%	48%
65	100%	100%

JRS
Probabilities of Service Retirement
Among Members Eligible to Retire

Age	Rate
60	1%
61	1%
62	14%
63	14%
64	18%
65	30%
66	33%
67	18%
68	18%
69	18%
70	22%
71	22%
72	22%
73	22%
74	22%
75	100%

4. Retirement (page 3 of 3):

PERS Plan 1
Probabilities of Disablement

Age	Male	Female
20	0.0000%	0.0000%
25	0.0000%	0.0000%
30	0.0000%	0.0000%
35	0.0310%	0.0319%
40	0.0762%	0.0710%
45	0.1481%	0.1431%
50	0.2542%	0.3023%
55	0.8240%	0.6411%
60*	1.1701%	0.6502%
64	1.1701%	0.5495%

* Plan 1 we assume no disabilities for ages 60+.

PERS Plan 2/3
Probabilities of Disablement

Age	Male	Female
20	0.0000%	0.0000%
25	0.0052%	0.0000%
30	0.0115%	0.0056%
35	0.0156%	0.0194%
40	0.0235%	0.0275%
45	0.0476%	0.0467%
50	0.0922%	0.1003%
55	0.2630%	0.2782%
60	0.7603%	0.7681%
64	1.0244%	1.0271%

SERS Plan 2/3
Probabilities of Disablement

Age	Male	Female
20	0.0000%	0.0000%
25	0.0000%	0.0000%
30	0.0000%	0.0048%
35	0.0081%	0.0176%
40	0.0258%	0.0164%
45	0.0568%	0.0201%
50	0.1102%	0.0738%
55	0.3428%	0.2876%
60	0.9292%	0.5589%
64	1.2272%	0.6589%

WSPRS
Probabilities of Disablement

The assumed rate of disability is 0.1% at all ages.

TRS Plan 1
Probabilities of Disablement

Age	Male	Female
20	0.0013%	0.0014%
25	0.0091%	0.0092%
30	0.0187%	0.0190%
35	0.0321%	0.0326%
40	0.0428%	0.0434%
45	0.0944%	0.0957%
50	0.1634%	0.1656%
55	0.3347%	0.3393%
60*	0.4686%	0.4750%
64	0.7213%	0.7311%

* Plan 1 we assume no disabilities for ages 60+.

TRS Plan 2/3
Probabilities of Disablement

Age	Male	Female
20	0.0003%	0.0003%
25	0.0024%	0.0019%
30	0.0048%	0.0040%
35	0.0083%	0.0068%
40	0.0111%	0.0091%
45	0.0244%	0.0201%
50	0.0422%	0.0347%
55	0.0866%	0.0712%
60	0.1212%	0.0997%
64	0.1865%	0.1534%

LEOFF Plan 1 and Plan 2
Probabilities of Disablement

Age	Plan 1 Rate	Plan 2 Rate
20	0.10%	0.00%
25	0.10%	0.00%
30	0.80%	0.00%
35	1.48%	0.00%
40	2.35%	0.01%
45	4.24%	0.02%
50	7.34%	0.05%
55	10.35%	0.10%
60	12.17%	0.10%

JRS-Probabilities of Disablement

A 1 percent rate of disability is assumed at all ages after ten years of service.

5. Other Terminations of Employment (page 1 of 2): Probabilities of termination are illustrated in the following tables.

PERS Plan 1 and Plan 2/3 General Employment Turnover Probabilities of Termination		
Years of Service	Male	Female
0	25.90%	26.39%
1	15.46%	16.72%
2	10.20%	11.72%
3	7.69%	9.25%
4	6.39%	7.69%
5	5.31%	6.53%
6	4.35%	5.87%
7	4.07%	5.31%
8	3.73%	4.69%
9	3.54%	4.11%
10	3.25%	3.87%
11	3.10%	3.54%
12	3.05%	3.15%
13	2.86%	3.10%
14	2.76%	3.00%
15	2.66%	2.86%
16	2.37%	2.62%
17	2.13%	2.27%
18	1.83%	1.98%
19	1.49%	1.73%
20	1.14%	1.44%
21	0.95%	1.14%
22	0.75%	0.95%
23	0.60%	0.80%
24	0.55%	0.55%
25	0.50%	0.45%
26+	0.40%	0.40%

SERS Plan 2/3 General Employment Turnover Probabilities of Termination		
Years of Service	Male	Female
0	25.90%	19.45%
1	16.09%	12.87%
2	11.54%	10.07%
3	10.07%	7.60%
4	8.52%	6.58%
5	7.28%	5.97%
6	6.06%	5.31%
7	5.59%	5.21%
8	4.93%	4.83%
9	4.64%	4.64%
10	4.26%	4.50%
11	4.02%	4.45%
12	3.83%	4.40%
13	3.73%	4.40%
14	3.25%	4.21%
15	2.96%	4.26%
16	2.66%	3.78%
17	2.42%	3.44%
18	2.03%	3.10%
19	1.59%	2.62%
20	1.24%	2.03%
21	1.14%	1.59%
22	0.85%	1.29%
23	0.65%	0.85%
24	0.65%	0.75%
25	0.50%	0.75%
26+	0.50%	0.75%

5. Other Terminations of Employment (page 2 of 2):

TRS Plan1 and Plan 2/3 General Employment Turnover Probabilities of Termination

Years of Service	Male	Female
0	9.65%	10.00%
1	6.00%	7.00%
2	4.00%	5.50%
3	4.00%	4.50%
4	3.50%	4.00%
5	3.00%	3.50%
6	2.20%	3.00%
7	2.10%	2.60%
8	2.00%	2.00%
9	1.90%	1.95%
10	1.80%	1.90%
11	1.80%	1.70%
12	1.00%	1.40%
13	1.00%	1.40%
14	1.00%	1.40%
15	1.00%	1.40%
16	0.95%	1.10%
17	0.90%	0.90%
18	0.80%	0.90%
19	0.70%	0.90%
20	0.50%	0.50%
21	0.50%	0.50%
22	0.50%	0.50%
23	0.50%	0.50%
24	0.50%	0.50%
25	0.50%	0.50%
26+	0.50%	0.50%

WSPRS Plan 1 General Employment Turnover Probabilities of Termination

Years of Service	Probability
0-4	2.4%
5-9	1.4%
10-14	0.9%
15-19	0.6%
20-25	0.2%
25+	0.0%

LEOFF Plan 1 and Plan 2 General Employment Turnover Probabilities of Termination

Years of Service	Turnover Rate
0	10.43%
1	4.69%
2	2.37%
3	2.08%
4	1.98%
5	1.94%
6	1.94%
7	1.94%
8	1.67%
9	1.67%
10	1.67%
11	1.42%
12	1.42%
13	1.42%
14-16	0.99%
17-28	0.70%
29+	0.00%

JRS Other Rates of Termination Probabilities of Termination

A 2 percent rate of termination is assumed for the first ten years of service.

6. Future Salaries (page 1 of 2): The following tables indicate the scale of relative salary values used to estimate future salaries for valuation purposes. In addition to increases in salary due to promotions and longevity, there is an assumed 4.5 percent per annum rate of increase in the general salary level of the membership.

**PERS Plan 1 and Plan 2/3
Merit Salary Increases**

Years of Service	Percent Increase	Final Salary over Current Salary
1	6.1%	1.275
2	4.8%	1.201
3	3.8%	1.146
4	2.9%	1.104
5	2.1%	1.073
6	1.3%	1.051
7	1.0%	1.038
8	0.8%	1.027
9	0.6%	1.019
10	0.4%	1.013
11	0.3%	1.009
12	0.2%	1.006
13	0.1%	1.004
14	0.1%	1.003
15	0.1%	1.002
16	0.1%	1.001
17+	0.0%	1.000

**TRS Plan 1 and Plan 2/3
Merit Salary Increases**

Years of Service	Percent Increase	Final Salary over Current Salary
1	6.2%	1.476
2	4.4%	1.390
3	4.2%	1.331
4	3.5%	1.278
5	3.1%	1.235
6	2.7%	1.197
7	2.6%	1.166
8	2.3%	1.136
9	2.1%	1.111
10	1.9%	1.088
11	1.7%	1.068
12	1.6%	1.050
13	1.4%	1.033
14	0.9%	1.019
15	0.8%	1.010
16	0.2%	1.002
17+	0.0%	1.000

**SERS Plan 2/3
Merit Salary Increases**

Years of Service	Percent Increase	Final Salary over Current Salary
1	7.0%	1.280
2	3.9%	1.196
3	2.8%	1.151
4	2.3%	1.120
5	2.2%	1.095
6	1.5%	1.071
7	1.2%	1.055
8	1.0%	1.043
9	0.8%	1.032
10	0.7%	1.024
11	0.7%	1.017
12	0.3%	1.010
13	0.3%	1.007
14	0.2%	1.004
15	0.1%	1.002
16	0.1%	1.001
17+	0.0%	1.000

**LEOFF Plan 1 and Plan 2
Merit Salary Increases**

Years of Service	Percent Increase	Final Salary over Current Salary
1	11.7%	1.810
2	8.1%	1.621
3	6.6%	1.499
4	4.5%	1.406
5	3.2%	1.346
6	2.5%	1.304
7	2.2%	1.272
8	2.0%	1.245
9	2.0%	1.221
10	2.0%	1.197
11	1.9%	1.173
12	1.8%	1.151
13	1.7%	1.131
14	1.6%	1.112
15	1.6%	1.095
16	1.6%	1.077
17	1.6%	1.060
18	1.6%	1.044
19	1.4%	1.027
20	1.3%	1.013
21+	0.0%	1.000

6. Future Salaries (page 2 of 2):

**WSPRS Plan 1
Merit Salary Increases**

Years of Service	Percent Increase	Final Salary over Current Salary
1	6.0%	1.678
2	6.0%	1.583
3	6.0%	1.493
4	6.0%	1.409
5	6.0%	1.329
6	6.0%	1.254
7	1.3%	1.183
8	1.3%	1.168
9	1.3%	1.153
10	1.3%	1.138
11	1.3%	1.123
12	1.3%	1.109
13	1.3%	1.095
14	1.3%	1.081
15	1.3%	1.067
16	1.3%	1.053
17	1.3%	1.040
18	1.3%	1.026
19	1.3%	1.013
20	0.0%	1.000
21+	0.0%	1.000

**JRS
Future Salaries**

General salary levels are assumed to increase 4.5% per year.

Relative Salary Values

	PERS/SERS	TRS	LEOFF	WSPRS	JRS
Annual Percent Increase	5.81%	5.44%	5.81%	5.81%	4.50%
Attributed to Growth in Active Group Size	1.25%	0.90%	1.25%	1.25%	0.00%
Attributed to the Effects of Inflation on Salaries	4.50%	4.50%	4.50%	4.50%	4.50%

7. Other Specific Assumptions that Have a Material Impact on Valuation Results:

- Members of PERS Plan 1 increase their Average Final Compensation by an average of up to 5 percent by cashing out sick leave or vacation pay, or by increasing overtime.
- Members of TRS Plan 1 increase their Average Final Compensation by an average of up to 1 percent by cashing out sick leave or vacation pay, or by increasing overtime.
- LEOFF Plan 1 post-retirement increases are assumed to be 3.5 percent each year.
- Members of WSPRS Plan 1 increase their Average Final Compensation by an average of up to 7.5 percent by cashing out sick leave or vacation pay, or by increasing overtime.
- Other assumptions include the recognition of service earned in another plan (portability), the probability of a vested terminated member not withdrawing their contributions from the plan, the probability of being married, military service, single life annuity refund on death, and beneficiary age. More details of these and other assumptions can be found in the latest experience study (1995-2000).

8. Change in Assumptions:

Demographic assumptions are updated to reflect the latest experience study (1995-2000) and the new September 30 valuation date.

9. Actuarial Cost Method:

Valuation assets are at market value with gains/losses recognized evenly over a four-year period. JRS and Judges use the market value of assets for valuation assets.

PERS Plan 1, TRS Plan 1, LEOFF Plan 1, JRS, and Judges:

Funding: A variation of the Entry Age Actuarial Cost Method is used. The contribution toward the UAAL has been developed in the valuation as a level percentage of expected future covered payrolls which will amortize the UAAL over the period to June 30, 2024. While the LEOFF Plan 1 UAAL is fully funded no contributions are required. JRS and Judges are funded on a pay-as-you-go basis.

Disclosure: The funding method described on the previous page for PERS Plan 1, TRS Plan 1, and LEOFF Plan 1 is not an acceptable method for the GASB Statement Number 25 disclosures. In order to meet GASB Statement Number 25 requirements, the Entry Age cost method has been used for these plans. The UAAL is amortized as a level dollar amount over the applicable amortization period. For PERS, TRS and LEOFF the end of the amortization period is June 30, 2024. For JRS and Judges, the end of the amortization period is December 31, 2008.

PERS Plan 2/3, SERS Plan 2/3, TRS Plan 2/3, LEOFF Plan 2, and WSPRS:

The Aggregate Actuarial Cost Method is used to calculate the contribution rates. Under this method the unfunded actuarial present value of fully projected benefits is amortized over the projected earnings of the active group. The entire contribution is normal cost, and no UAAL exists. All gains and losses are amortized over future salaries of current active members.

10. Change in Actuarial Cost Method:

None.

11. Material Changes in Benefit Provisions and Contribution Rates:

The contribution rates implemented in 2002 were based on the 2000 actuarial valuations but with the new demographic assumptions.

Additional Actuarial Schedules

Schedule of Active Member Valuation Data: PERS Plan 1

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	23,981	\$1,084.6	\$45,226	3.2%
12/31/00	25,833	1,132.2	43,827	4.2%
12/31/99	28,168	1,184.3	42,045	3.6%
12/31/98	30,374	1,233.2	40,601	3.4%
12/31/97	32,361	1,271.0	39,276	2.8%
12/31/96	34,210	1,307.5	38,220	4.0%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: PERS Plan 2

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	128,955	\$5,249.4	\$40,707	3.7%
12/31/00	126,428	4,964.2	39,265	19.1%
12/31/99	168,214	5,546.2	32,971	3.8%
12/31/98	161,476	5,131.4	31,778	1.9%
12/31/97	154,079	4,807.1	31,199	2.7%
12/31/96	148,400	4,510.0	30,391	3.3%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: SERS Plan 2

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	24,063	\$485.9	\$20,193	(1.3)%
12/31/00	25,714	526.3	20,466	n/a
12/31/99*	--	--	--	--
12/31/98*	--	--	--	--
12/31/97*	--	--	--	--
12/31/96*	--	--	--	--

* SERS Plan 2 became effective on September 1, 2000.

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: SERS Plan 3

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	24,284	\$517.8	\$21,324	(3.4)%
12/31/00	22,011	485.8	22,073	n/a
12/31/99*	--	--	--	--
12/31/98*	--	--	--	--
12/31/97*	--	--	--	--
12/31/96*	--	--	--	--

* SERS Plan 3 became effective on September 1, 2000.

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: TRS Plan 1

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	13,971	\$ 799.7	\$57,243	3.0%
6/30/00	17,222	957.2	55,580	5.8%
6/30/99	18,737	984.4	52,540	1.3%
6/30/98	20,165	1,046.4	51,891	3.6%
6/30/97	21,628	1,083.4	50,093	0.9%
6/30/96	22,716	1,127.6	49,637	4.4%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: TRS Plan 2

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	8,056	\$ 391.2	\$48,563	5.0%
6/30/00	8,356	386.3	46,230	7.5%
6/30/99	8,663	372.7	43,022	2.2%
6/30/98	9,058	381.3	42,090	4.1%
6/30/97	33,499	1,354.6	40,437	3.5%
6/30/96	36,709	1,434.4	39,075	5.7%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: TRS Plan 3

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	44,193	\$1,958.3	\$44,312	2.4%
6/30/00	38,280	1,657.1	43,288	5.6%
6/30/99	35,284	1,445.9	40,979	0.7%
6/30/98	32,605	1,326.8	40,694	19.2%
6/30/97	5,688	194.2	34,145	n/a
6/30/96*	--	--	--	--

* TRS Plan 3 became effective on July 1, 1996.

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: LEOFF Plan 1

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	1,315	\$86.7	\$65,959	4.2%
12/31/00	1,499	94.9	63,296	4.3%
12/31/99	1,743	105.8	60,683	3.1%
12/31/98	1,986	116.9	58,841	6.3%
12/31/97	2,313	128.0	55,347	4.4%
12/31/96	2,593	137.5	53,034	3.2%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: LEOFF Plan 2

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	13,585	\$830.6	\$61,139	2.9%
12/31/00	13,133	780.2	59,410	4.2%
12/31/99	12,713	725.0	57,031	4.3%
12/31/98	11,870	649.3	54,700	5.5%
12/31/97	11,401	591.1	51,846	4.3%
12/31/96	10,827	538.2	49,706	4.4%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: WSPRS Plan 1

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	1,027	\$60.2	\$58,633	1.5%
12/31/00	1,013	58.5	57,745	0.4%
12/31/99	968	55.7	57,496	4.8%
12/31/98	929	50.9	54,842	5.0%
12/31/97	927	48.4	52,235	7.9%
12/31/96	917	44.4	48,427	5.3%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: JRS

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	26	\$3.0	\$114,475	2.6%
12/31/00	32	3.6	111,570	6.1%
12/31/99	38	4.0	105,196	2.2%
12/31/98	40	4.1	102,935	1.4%
12/31/97	41	4.2	101,537	0.9%
12/31/96	52	5.2	100,582	1.7%

Source: Washington State Office of the State Actuary

Schedule of Active Member Valuation Data: Judges

Valuation Date	Active Members	Annual Payroll in Millions	Average Annual Pay	Annualized % Increase in Average Pay
9/30/01	1	\$0.1	\$131,558	6.4%
12/31/00	1	0.1	123,600	3.0%
12/31/99	1	0.1	120,000	7.1%
12/31/98	1	0.1	112,078	7.3%
12/31/97	2	0.2	104,448	1.3%
12/31/96	4	0.4	103,090	--

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: PERS Plan 1

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	2,077	\$44,457,501	1,700	\$14,141,440	53,538	\$704,757,211	\$13,164	6.3%
12/31/00	2,831	59,251,651	2,185	17,226,292	53,161	663,195,163	12,475	9.0%
12/31/99	2,680	52,982,694	2,113	16,128,342	52,515	608,698,282	11,591	7.7%
12/31/98	2,481	44,980,199	2,131	15,415,477	51,948	565,036,942	10,877	7.2%
12/31/97	2,403	40,095,945	1,988	13,490,739	51,598	526,918,776	10,212	6.7%
12/31/96	2,243	34,130,942	1,875	11,941,809	51,183	493,813,584	9,648	5.7%

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: PERS Plan 2

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	855	\$6,840,039	131	\$707,695	8,651	\$56,726,796	\$6,557	15.3%
12/31/00	1,319	9,807,863	157	868,467	7,927	49,210,077	6,208	25.5%
12/31/99	1,198	8,229,229	118	549,264	6,765	39,204,885	5,795	27.3%
12/31/98	1,020	6,637,345	108	483,716	5,685	30,786,831	5,415	28.2%
12/31/97	847	4,877,618	99	401,791	4,773	24,017,736	5,032	26.5%
12/31/96	834	4,262,647	91	314,901	4,025	18,981,900	4,716	29.2%

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: SERS Plan 2

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	165	\$884,752	1	\$1,873	191	\$1,035,001	\$5,419	583.5%
12/31/00	27	151,432	--	--	27	151,432	5,609	n/a
12/31/99*	--	--	--	--	--	--	--	--
12/31/98*	--	--	--	--	--	--	--	--
12/31/97*	--	--	--	--	--	--	--	--
12/31/96*	--	--	--	--	--	--	--	--

*SERS Plan 2 became effective on September 1, 2000.

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: SERS Plan 3

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	78	\$198,145	--	\$--	78	\$198,145	\$2,540	n/a
12/31/00	--	--	--	--	--	--	--	--
12/31/99*	--	--	--	--	--	--	--	--
12/31/98*	--	--	--	--	--	--	--	--
12/31/97*	--	--	--	--	--	--	--	--
12/31/96*	--	--	--	--	--	--	--	--

*SERS Plan 3 became effective on September 1, 2000.

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: TRS Plan 1

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	3,524	\$81,519,141	1,168	\$13,045,875	32,195	\$544,358,707	\$16,908	17.5%
06/30/00	1,799	38,290,541	880	9,273,313	29,839	463,256,486	15,525	8.2%
06/30/99	1,677	34,602,902	898	8,961,508	28,920	427,968,688	14,798	7.6%
06/30/98	1,632	33,153,335	823	7,977,486	28,141	397,649,379	14,131	7.7%
06/30/97	1,338	25,214,610	857	7,766,022	27,332	369,309,984	13,512	6.0%
06/30/96	1,315	23,952,090	812	6,700,503	26,851	348,311,172	12,972	6.6%

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: TRS Plan 2

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	204	\$2,339,594	14	\$153,589	709	\$7,267,477	\$10,250	50.9%
06/30/00	126	1,299,148	5	32,227	519	4,814,556	9,277	38.9%
06/30/99	90	902,554	4	24,541	398	3,466,085	8,709	37.8%
06/30/98	83	731,178	2	12,944	312	2,515,288	8,062	43.0%
06/30/97	67	601,901	3	12,705	231	1,758,948	7,614	53.8%
06/30/96	50	365,682	1	3,592	167	1,143,985	6,850	46.4%

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: TRS Plan 3

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	113	\$527,667	2	\$6,706	203	\$894,795	\$4,408	150.8%
06/30/00	42	180,129	--	--	92	356,823	3,879	101.6%
06/30/99	40	145,317	--	--	50	176,974	3,539	475.8%
06/30/98	6	19,834	--	--	10	30,735	3,074	181.9%
06/30/97	4	10,901	--	--	4	10,901	2,725	n/a
06/30/96*	--	--	--	--	--	--	--	--

*TRS Plan 3 became effective on July 1, 1996.

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: LEOFF Plan 1

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	233	\$8,351,533	119	\$3,479,510	7,894	\$248,160,932	\$31,437	5.7%
12/31/00	325	11,645,461	168	4,566,907	7,780	234,869,646	30,189	6.1%
12/31/99	348	11,397,460	159	4,062,564	7,623	221,408,074	29,045	6.0%
12/31/98	381	12,231,130	127	3,366,345	7,434	208,973,849	28,111	7.5%
12/31/97	369	10,897,621	133	3,162,560	7,180	194,464,923	27,084	7.3%
12/31/96	406	11,954,666	125	2,748,280	6,944	181,155,072	26,088	8.0%

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: LEOFF Plan 2

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	44	\$747,153	3	\$20,400	184	\$2,347,816	\$12,760	48.6%
12/31/00	45	610,415	2	15,024	143	1,579,593	11,046	66.4%
12/31/99	23	271,079	3	31,542	100	949,552	9,496	38.6%
12/31/98	13	158,887	--	--	80	685,058	8,563	31.5%
12/31/97	18	161,985	--	--	67	521,062	7,777	50.6%
12/31/96	8	30,227	--	--	48	346,029	7,209	26.9%

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: WSPRS Plan 1

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	36	\$1,440,257	12	\$224,122	696	\$22,105,141	\$31,760	9.0%
12/31/00	37	1,367,942	12	105,489	672	20,271,907	30,167	8.6%
12/31/99	49	1,507,418	14	231,872	647	18,670,760	28,857	9.2%
12/31/98	38	1,304,229	6	104,581	612	17,097,410	27,937	9.5%
12/31/97	31	1,023,035	11	123,327	580	15,608,236	26,916	8.3%
12/31/96	47	1,453,525	15	135,720	560	14,407,680	25,728	12.5%

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: JRS

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	6	\$411,383	3	\$126,097	134	\$8,090,219	\$60,375	6.6%
12/31/00	7	406,024	8	228,527	131	7,588,432	57,927	4.2%
12/31/99	7	252,731	9	464,254	132	7,284,962	55,189	(0.7)%
12/31/98	6	200,878	7	275,335	134	7,336,530	54,750	1.5%
12/31/97	14	865,194	3	172,291	135	7,227,765	53,539	13.8%
12/31/96	3	166,392	3	**	124	6,350,000	51,210	1.8%

** Data not available.

Source: Washington State Office of the State Actuary

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls: Judges

Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average Annual Allowance	Percentage Increase in Annual Allowance
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
09/30/01	--	\$ --	--	\$ --	18	\$662,102	\$36,783	--
12/31/00	--	--	--	--	18	662,102	36,783	--
12/31/99	--	--	1	5,427	18	662,102	36,783	(0.8)%
12/31/98	1	74,261	--	--	19	667,529	35,133	12.5%
12/31/97	2	152,597	1	3,361	18	593,262	32,959	33.8%
12/31/96	--	--	1	**	17	443,496	26,088	(2.2)%

** Data not available.

Source: Washington State Office of the State Actuary

Solvency Test: PERS Plan 1

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$1,515.9	\$7,231.7	\$3,340.8	\$12,088.4	\$10,989.9	100%	100%	67%
12/31/00	1,685.8	6,795.8	3,213.2	11,694.8	11,110.6	100%	100%	82%
12/31/99	1,581.0	6,453.8	3,601.2	11,636.0	10,455.5	100%	100%	67%
12/31/98	1,712.9	5,922.7	3,591.5	11,227.1	9,218.8	100%	100%	44%
12/31/97	1,683.4	5,615.2	3,518.6	10,817.2	8,210.6	100%	100%	26%
12/31/96	1,642.0	4,998.7	3,698.2	10,338.9	7,197.0	100%	100%	15%

The Entry Age Actuarial Cost Method was used for this plan.
Source: Washington State Office of the State Actuary

Solvency Test: PERS Plan 2/3

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$2,118.5	\$1,217.6	\$7,695.5	\$11,031.6	\$11,031.6	100%	100%	100%
12/31/00	2,416.0	1,095.6	7,237.0	10,748.6	10,748.6	100%	100%	100%
12/31/99	2,294.8	968.9	8,107.3	11,371.0	11,371.0	100%	100%	100%
12/31/98	2,392.9	774.0	6,339.0	9,505.9	9,505.9	100%	100%	100%
12/31/97	2,117.1	541.5	5,260.3	7,918.9	7,918.9	100%	100%	100%
12/31/96	1,849.3	437.6	4,119.9	6,406.8	6,406.8	100%	100%	100%

Source: Washington State Office of the State Actuary

Solvency Test: SERS Plan 2/3

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$171.9	\$49.6	\$1,250.2	\$1,471.7	\$1,471.7	100%	100%	100%
12/31/00	353.4	3.2	1,495.9	1,852.5	1,852.5	100%	100%	100%
12/31/99*	--	--	--	--	--	--	--	--
12/31/98*	--	--	--	--	--	--	--	--
12/31/97*	--	--	--	--	--	--	--	--
12/31/96*	--	--	--	--	--	--	--	--

* SERS Plan 2/3 became effective on September 1, 2000
Source: Washington State Office of the State Actuary

Solvency Test: TRS Plan 1

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$1,173.8	\$6,120.5	\$2,600.6	\$9,894.9	\$9,341.8	100%	100%	77%
6/30/00	1,408.0	5,140.0	3,017.7	9,565.7	9,372.0	100%	100%	94%
6/30/99	1,384.1	4,917.0	3,227.9	9,529.0	8,696.1	100%	100%	74%
6/30/98	1,466.0	4,506.0	3,382.0	9,354.0	7,819.3	100%	100%	55%
6/30/97	1,466.3	3,903.6	3,673.8	9,043.7	6,843.6	100%	100%	40%
6/30/96	1,489.7	3,800.5	3,505.9	8,796.0	5,924.0	100%	100%	18%

The Entry Age Actuarial Cost Method was used for this plan.

Source: Washington State Office of the State Actuary

Solvency Test: TRS Plan 2/3

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$259.0	\$254.0	\$3,034.2	\$3,547.2	\$3,547.2	100%	100%	100%
6/30/00	331.4	183.2	2,735.1	3,249.7	3,249.7	100%	100%	100%
6/30/99	238.5	156.4	2,512.9	2,907.8	2,907.8	100%	100%	100%
6/30/98	108.1	125.2	2,333.8	2,567.1	2,567.1	100%	100%	100%
6/30/97	834.3	106.0	1,776.2	2,716.5	2,716.5	100%	100%	100%
6/30/96	739.9	87.8	1,357.4	2,185.0	2,185.0	100%	100%	100%

Source: Washington State Office of the State Actuary

Solvency Test: LEOFF Plan 1

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$138.3	\$3,505.0	\$509.7	\$4,153.0	\$5,368.9	100%	100%	100%
12/31/00	154.2	3,299.3	548.9	4,002.4	5,439.6	100%	100%	100%
12/31/99	165.6	3,313.5	646.2	4,125.3	5,149.7	100%	100%	100%
12/31/98	178.0	3,036.5	691.2	3,905.7	4,567.5	100%	100%	100%
12/31/97	188.0	2,836.6	742.1	3,766.7	4,087.1	100%	100%	100%
12/31/96	193.4	2,899.2	913.1	4,005.7	3,593.7	100%	100%	55%

The Entry Age Actuarial Cost Method was used for this plan.

Source: Washington State Office of the State Actuary

Solvency Test: LEOFF Plan 2

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$686.8	\$72.1	\$1,816.7	\$2,575.6	\$2,575.6	100%	100%	100%
12/31/00	650.3	55.2	1,753.8	2,459.3	2,459.3	100%	100%	100%
12/31/99	568.8	38.7	1,555.4	2,162.9	2,162.9	100%	100%	100%
12/31/98	511.5	33.3	1,227.2	1,772.0	1,772.0	100%	100%	100%
12/31/97	437.7	18.8	993.1	1,449.6	1,449.6	100%	100%	100%
12/31/96	371.5	14.3	770.8	1,156.6	1,156.6	100%	100%	100%

Source: Washington State Office of the State Actuary

Solvency Test: WSPRS Plan 1

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$46.7	\$294.8	\$370.3	\$711.8	\$711.8	100%	100%	100%
12/31/00	51.7	270.2	390.1	712.0	712.0	100%	100%	100%
12/31/99	46.3	230.1	161.1	437.5	662.2	100%	100%	100%
12/31/98	47.3	211.5	152.1	410.9	576.1	100%	100%	100%
12/31/97	44.6	190.7	143.4	378.7	505.4	100%	100%	188%
12/31/96	41.6	169.6	140.0	351.2	434.8	100%	100%	160%

Source: Washington State Office of the State Actuary

Solvency Test: JRS

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$5.0	\$74.1	\$12.4	\$91.5	\$9.6	100%	6%	--
12/31/00	5.8	72.8	14.5	93.1	9.9	100%	6%	--
12/31/99	6.2	70.6	17.3	94.1	9.1	100%	4%	--
12/31/98	6.1	72.6	17.5	96.2	7.6	100%	2%	--
12/31/97	5.8	72.3	16.9	95.0	5.4	93%	--	--
12/31/96	6.9	63.3	22.1	92.3	4.1	59%	--	--

This is a relatively small fund administered by DRS which is funded on a pay-as-you-go basis.

Source: Washington State Office of the State Actuary

Solvency Test: Judges

(dollars in millions)

Aggregate Accrued Liabilities for:					Portion of Accrued Liabilities Covered by Assets			
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	(1+2+3) Accrued Liability	Valuation Assets	(1)	(2)	(3)
9/30/01	\$ --	\$5.3	\$0.8	\$6.1	\$4.9	100%	92%	--
12/31/00	--	5.3	0.7	6.0	4.7	100%	89%	--
12/31/99	--	5.7	0.8	6.5	4.4	100%	77%	--
12/31/98	--	5.8	0.7	6.5	4.1	100%	70%	--
12/31/97	--	5.3	1.5	6.8	3.8	100%	72%	--
12/31/96	2.8	3.7	0.1	6.6	3.4	100%	16%	--

This is a relatively small fund administered by DRS which is funded on a pay-as-you-go basis.

Source: Washington State Office of the State Actuary

Analysis of Selected Experience: PERS Plan 1
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)						
Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$422.3)	\$86.2	\$856.5	\$644.4	\$712.8	\$490.5
Salary Gains	(16.8)	(38.8)	15.6	26.7	126.7	56.0
Termination of Employment	13.2	12.7	8.4	7.1	1.4	0.7
Return to Work from Terminated Status	(35.2)	(49.1)	(53.1)	(57.0)	(53.5)	(57.2)
Gain (or Loss) During Year from Selected Experience	(\$461.1)	\$11.0	\$827.4	\$621.2	\$787.4	\$490.0

Source: Washington State Office of the State Actuary

Analysis of Selected Experience: PERS Plan 2/3
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)						
Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$430.8)	\$45.9	\$886.7	\$602.8	\$636.2	\$387.0
Salary Gains	(21.3)	(76.3)	30.1	47.1	229.5	92.6
Termination of Employment	33.1	41.0	38.4	31.5	30.1	14.0
Return to Work from Terminated Status	(71.8)	(72.4)	(95.4)	(95.0)	(115.7)	(114.1)
Gain (or Loss) During Year from Selected Experience	(\$490.8)	(\$61.8)	\$859.8	\$586.4	\$780.1	\$379.5

Source: Washington State Office of the State Actuary

Analysis of Selected Experience: SERS Plan 2/3*
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)						
Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$52.6)	\$16.0	\$ --	\$ --	\$ --	\$ --
Salary Gains	11.3	13.9	--	--	--	--
Termination of Employment	4.8	4.0	--	--	--	--
Return to Work from Terminated Status	(18.9)	(23.3)	--	--	--	--
Gain (or Loss) During Year from Selected Experience	(\$55.4)	\$10.6	\$ --	\$ --	\$ --	\$ --

* SERS Plan 2/3 became effective September 1, 2000
Source: Washington State Office of the State Actuary

Analysis of Selected Experience: TRS Plan 1
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)

Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$300.3)	\$496.3	\$552.7	\$689.8	\$646.6	\$362.8
Salary Gains	49.4	(70.2)	184.3	34.8	230.9	31.2
Termination of Employment	6.5	5.5	2.8	2.7	0.1	(6.0)
Return to Work from Terminated Status	(21.8)	(19.1)	(20.6)	(15.8)	(19.2)	(15.9)
Gain (or Loss) During Year from Selected Experience	(\$266.2)	\$412.5	\$719.2	\$711.5	\$858.4	\$372.1

Source: Washington State Office of the State Actuary

Analysis of Selected Experience: TRS Plan 2/3
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)

Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$118.1)	\$164.0	\$187.7	\$234.3	\$202.5	\$124.9
Salary Gains	65.2	(50.8)	107.5	18.6	186.3	23.8
Termination of Employment	5.9	10.1	7.7	5.2	10.7	1.0
Return to Work from Terminated Status	(36.4)	(30.6)	(25.4)	(13.0)	(26.3)	(20.4)
Gain (or Loss) During Year from Selected Experience	(\$83.4)	\$92.7	\$277.5	\$245.1	\$373.2	\$129.3

Source: Washington State Office of the State Actuary

Analysis of Selected Experience: LEOFF Plan 1
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)

Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$205.1)	\$44.3	\$427.3	\$321.3	\$343.9	\$254.2
Salary Gains	24.7	16.9	0.6	0.2	8.6	11.2
Termination of Employment	0.6	0.5	0.1	0.7	--	--
Return to Work from Terminated Status	(0.5)	(1.1)	(1.5)	(0.2)	(0.2)	--
Gain (or Loss) During Year from Selected Experience	(\$180.3)	\$60.6	\$426.5	\$322.0	\$352.3	\$265.4

Source: Washington State Office of the State Actuary

Analysis of Selected Experience: LEOFF Plan 2
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)

Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$99.5)	\$9.1	\$165.4	\$109.9	\$110.4	\$71.8
Salary Gains	39.9	(0.3)	2.0	(25.0)	18.6	20.4
Termination of Employment	1.1	1.1	0.4	0.9	--	--
Return to Work from Terminated Status	(2.0)	(2.1)	(4.4)	(2.3)	(2.4)	(2.6)
Gain (or Loss) During Year from Selected Experience	(\$60.5)	\$7.8	\$163.4	\$83.5	\$126.6	\$89.6

Source: Washington State Office of the State Actuary

Analysis of Selected Experience: WSPRS Plan 1
Selected Gains and Losses During Years Ended 1996 to 2001
Resulting from Difference Between Assumed Experience and Actual Experience

(dollars in millions)

Type of Activity	\$ Gain (or Loss) For Year					
	2001	2000	1999	1998	1997	1996
Investment Gains	(\$27.3)	\$5.0	\$53.5	\$39.6	\$43.1	\$29.4
Salary Gains	4.1	3.7	(6.2)	(6.9)	(6.4)	(6.6)
Termination of Employment	0.1	0.2	0.1	0.1	0.1	0.2
Return to Work from Terminated Status	(0.1)	(0.1)	(0.1)	(0.1)	(0.3)	(0.1)
Gain (or Loss) During Year from Selected Experience	(\$23.2)	\$8.8	\$47.3	\$32.7	\$36.5	\$22.9

Source: Washington State Office of the State Actuary